WHAT IS CLAIMED IS:

1. An optical disc recording and/or reproducing apparatus comprising:

a disc rotating mechanism for selectively loading thereon a plurality of sorts of optical discs having reciprocally different values of the track pitch of the recording track and hence different values of the recording density;

disc discriminating means for discriminating the sort of the optical disc loaded on said disc rotating mechanism;

a light source for radiating a light beam having a wavelength of approximately 780 nm;

an objective lens for converging the light beam radiated from said light source for irradiating said optical disc, said objective lens having the numerical aperture (NA) of approximately 0.62;

aberration producing means for generating the aberration in a light beam radiated from said objective lens to said optical disc;

light receiving means for receiving the reflected light from said optical disc; and

control means for driving said aberration producing means depending on the sorts of said optical disc discriminated by said disc discriminating means for correcting different sorts of the aberration produced in said light beam to record and/or reproduce the information signals for said optical disc.

2. The optical disc recording and/or reproducing apparatus according to claim 1 wherein said aberration producing means is formed by a liquid crystal device having

a plurality of electrode patterns, ands wherein said control means controls the driving voltage applied to said electrode patterns to correct the aberration generated in said electrode patterns.

3. The optical disc recording and/or reproducing apparatus according to claim 2 wherein the aberration corrected by said control means includes both the astigmatic aberration and coma aberration.

4. The optical disc recording and/or reproducing apparatus according to claim 1 wherein said control means controls the driving voltage applied to said electrode patterns to adjust the astigmatic aberration or coma aberration when the disc is verified in said disc discriminating means to be a first disc or a second disc, respectively.

5. An optical disc recording and/or reproducing apparatus comprising:

a disc rotating mechanism for selectively loading thereon a first optical disc having a first index of double refraction and a second optical disc having a second index of double refraction larger than said first index of refraction;

disc discriminating means for discriminating the sort of the optical disc loaded on said disc rotating mechanism;

a light source for radiating a light beam of a sole wavelength;

an objective lens for converging the light beam radiated from said light source for illuminating the converged light beam on the optical disc loaded on said disc rotating mechanism;

aberration producing means for producing the aberration in the light beam

radiated from said objective lens to said optical disc;

light receiving means for receiving the reflected light from said optical disc; and

control means for driving said aberration producing means depending on the sort of said optical disc discriminated by said disc discriminating means for correcting the aberration produced in the light beam to record and/or reproduce information signals for said optical disc.

6. The optical disc recording and/or reproducing apparatus according to claim 5 wherein said aberration producing means is formed by a liquid crystal device having a plurality of electrode patterns, and wherein said control means controls the driving voltage applied to said electrode patterns to correct the aberration produced in the light beam converged on said optical disc.

7. The optical disc recording and/or reproducing apparatus according to claim 6 wherein the aberration corrected by said control means comprises the coma aberration and the astigmatic aberration.

8. The optical disc recording and/or reproducing apparatus according to claim 5 wherein said control means controls the driving voltage applied to said electrode patterns so as to adjusts the astigmatic aberration or the coma aberration if the optical disc is verified by said disc discriminating means to be the first disc or the second disc, respectively.

9. A method for adjusting the aberration in an optical disc device on which can be selectively loaded a first optical disc having a first index of double refraction or a

second optical disc having a second index of refraction larger than said first index of double refraction, and which includes a liquid crystal device between a light source and an objective lens converging a light beam radiated from said light source on the optical disc loaded on said optical disc device, said method comprising:

an optimizing step of optimizing the focusing bias if the loaded optical disc is the first optical disc;

a step of storing the value of the focusing bias optimized at said optimizing step;

a first adjustment step of adjusting the voltage applied to said liquid crystal device so that the phase difference between a polarized light component along the arraying direction of said liquid crystal device and another polarized light component along a direction perpendicular to said arraying direction of said liquid crystal device will be approximately $\lambda/2$, where λ is the wavelength;

a step of storing the voltage adjusted in said first adjustment step as a reference voltage in a memory;

a second adjustment step of adjusting the voltage applied to said liquid crystal device so as to correct the coma aberration based on said reference voltage; and

a step of storing the voltage adjusted at said second adjustment step in the memory as a coma aberration correcting voltage.

10. The aberration adjustment method according to claim 9 wherein, if the second disc is loaded after said second adjustment step, the astigmatic aberration is corrected based on the reference voltage as adjusted at said first adjustment step.

11. A method for adjusting the aberration in an optical disc device on which can be selectively loaded a first optical disc having a first index of double refraction or a second optical disc having a second index of refraction larger than said first index of double refraction, and which includes a liquid crystal device between a light source and an objective lens converging a light beam radiated from said light source on the optical disc loaded on said optical disc device, said method comprising:

an optimizing step of optimizing the focusing bias if the loaded optical disc is the second optical disc;

a step of storing the value of the focusing bias optimized at said optimizing step;

a first adjustment step of adjusting the voltage applied to said liquid crystal device so that the phase difference between a polarized light component along the arraying direction of said liquid crystal device and another polarized light component along a direction perpendicular to said arraying direction of said liquid crystal device will be approximately $\lambda/2$, where λ is the wavelength;

a step of storing the voltage adjusted at said first adjustment step as a reference voltage in a memory;

a second adjustment step of adjusting the voltage applied to said liquid crystal device for correcting the astigmatic aberration based on said reference voltage; and

a step of storing the voltage adjusted at said second adjustment step as an astigmatic aberration correcting voltage in the memory.

12. The aberration adjustment method according to claim 11 wherein, if the first disc

is loaded after said second adjustment step, the coma aberration is corrected based on the reference voltage as adjusted at said first adjustment step.